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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,213	10/17/2001	Takeshi Yasumoto	684.3266	4502

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EXAMINER

BRASE, SANDRA L

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 04/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,213

Applicant(s)

YASUMOTO ET AL.

Examiner

Sandra L. Brase

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 and 39-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14, 23-28, 40-45, 49/9, 50/23 and 51/40 is/are allowed.
- 6) ☒ Claim(s) 1-8, 15-22, 29-36, 39, 46-48, 49/1, 50/15 and 51/32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-8, 15-17, 19-22, 30-33, 35, 36, 39, 46-48, 49/1, 50/15 and 51/32 are rejected under 35 U.S.C. 102(b) as being anticipated by Azuma et al. (US 6,035,159).

Azuma et al. (...159) disclose an image forming apparatus comprising: a photosensitive member (7); a charging means (8) for charging the photosensitive member; an image forming means for forming an electrostatic image on the photosensitive member that has been charged by the charging means; a developing means (10) for developing the electrostatic image; transferring means for transferring the image developed by the developing means onto a recording material (col. 2, lines 64-67); a driving source (col. 6, lines 29-32); a driver for transmitting a driving force from the driving source to the photosensitive member (col. 7, lines 37-44); a first coupling portion (20) having a polygonal shape (col. 6, lines 11-17); a second coupling portion (22) having a hole portion (21) which has a cross-sectional configuration larger than the first coupling portion, the hole portion being engageable with the first coupling portion (col. 6, lines 9-28); and a center shaft (25) provided on the second coupling and penetrating the first coupling and rotatable integrally with the first and second coupling portions (col. 7, lines 25-32; col. 11, line 55 – col. 12, line 10; and figures 9-13); wherein the photosensitive member has the first coupling

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portion, and the driver has the second coupling portion as a driver (figures 9-13). The first coupling portion receives a driving force from the second coupling portion (col. 6, lines 29-36; and col. 7, lines 37-44), where the first coupling portion is fixed to the photosensitive member, which is to be driven (col. 6, lines 1-17). The photosensitive member is positioned correctly relative to the image forming apparatus using the center shaft (col. 8, line 30 – col. 9, line 17; and figures 9-13). The first coupling portion has a twisted projection having a polygonal cross-section (col. 6, lines 11-17). The hole portion of the second coupling portion has a twisted polygonal cross-section (col. 6, lines 17-22). The second coupling portion is movable in an axial direction of the center shaft, and is provided with an urging means (26) for urging the second coupling in the axial direction of the center shaft (figures 9-13). The photosensitive member (7) is part of a unit (B) including a process means actable on the photosensitive member, where the process means can be the charging means, the developing means and a cleaning means for cleaning the photosensitive member (col. 3, lines 12-20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4, 18 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma et al. (US 6,035,159) in view of Nagasue et al. (US 5,768,656).

Azuma et al. (...159) disclose the features mentioned previously, but do not disclose the center shaft having the claimed taper configuration. Nagasue et al. (...656) disclose a center shaft (36) having a taper configuration at the end portion (figures 2, 3, 5 and 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the center shaft have a taper configuration at the end since such a configuration for a center shaft is well known in the art, as disclosed by Nagasue et al. (...656).

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma et al. (US 6,035,159) in view of Yokoyama et al. (US 6,016,413).

Azuma et al. (...159) disclose the features mentioned previously, but do not disclose the transferring means is an intermediary transfer member. Yokoyama et al. (...413) disclose a transferring means that is an intermediary transfer member (figure 40). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the transferring means to be an intermediary transfer member since it is well known in the art that a transferring means can be an intermediary one, as disclosed by Yokoyama et al. (...413).

Allowable Subject Matter

7. Claims 9-14, 23-28, 40-45, 49/9, 50/23 and 51/40 are allowed.

Response to Arguments

8. Applicant's arguments filed 1/23/03 have been fully considered but they are not persuasive.

Applicant argues that Azuma et al. (US 6,035,159) do not disclose that one of a first coupling portion and a second coupling portion receives a driving force and is fixed to a member to be driven. However, Azuma et al. (...159) disclose a first coupling portion (20) which receives a driving force from a second coupling portion (22), where the first coupling portion is fixed to the photosensitive member, which is a member to be driven, through attachment between a drum shaft projection (16), which is fixed to the photosensitive member, and a recess (17) which is provided on one side of a coupling shaft (18) and where the first coupling portion (20) is provided on the other side of the coupling shaft (figure 9).

Applicant argues that Azuma et al. (...159) also do not disclose one of a first coupling portion and a second coupling portion receives a driving force and is fixed to a photosensitive member, and the other one of the first coupling portion and the second coupling portion is provided as a driver. This is incorrect. Azuma et al. (...159) disclose a first coupling portion that receives a driving force and is fixed to a photosensitive member, as explained above, and the second coupling portion is provided on a driver (figures 9-13; and col. 6, lines 29-36).

Applicant further argues that Azuma et al. (...159) do not disclose a process unit comprising a coupling portion fixed to a photosensitive member and engageable with a driving

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portion of a main assembly of an image forming apparatus, and a hole portion engaged with a center shaft penetrating an engaging portion between the coupling portion and the driving portion. However, this is incorrect. Azuma et al. (...159) disclose a process unit (B) comprising a coupling portion (20) fixed to a photosensitive member, as explained above, and engageable with a driving portion of a main assembly of an image forming apparatus (col. 6, lines 1-58), and a hole portion engaged with a center shaft penetrating an engaging portion between the coupling portion and the driving portion (figures 9-13).

Final Rejection

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Contacts \ Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (703) 308-3101.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 or 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sandra L. Brase
Primary Examiner
Art Unit 2852

April 1, 2003